

Attachment 6

Monitoring, Assessment, and Performance Measures



**East Contra Costa County
Proposition 84 Round 1 Implementation Grant Proposal**

**ATTACHMENT 6 –
MONITORING, ASSESSMENT & PERFORMANCE MEASURES**

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The following pages provide information on the monitoring, assessment and performance measures for each of the projects included within this proposal. In accordance with the PSP, this attachment includes the following information

- ✓ The metrics used to evaluate project performance
- ✓ The monitoring systems in place to verify project performance
- ✓ A description of the data collection process and how the data will be evaluated to ensure the goals and objectives of the IRWM Plan are being met
- ✓ A discussion of how the project is consistent with the Basin Plan
- ✓ A project performance measures table including
 - Project Goals
 - Desired Outcomes
 - Output Indicators
 - Outcome indicators
 - Measurement Tools and Methods
 - Targets

Task 1 – East County Water Conservation Program

The East County Water Conservation Program contains multiple elements aimed at improving water use efficiency and/or saving valuable Delta and local groundwater supplies:

- DWD's High Efficiency Toilet (HET) Rebate Program
- DWD's Leak Detection and Repair Program
- Brentwood's E/T Controller Program

Metrics Used to Evaluate Project Performance

The following table describes the various metrics that will be used to evaluate the performance of each of these program elements.

Program Element	Metrics
DWD's HET Rebate Program	<ul style="list-style-type: none">• Number of rebates issued/HETs installed per year• AFY of water saved
DWD's Leak Detection and Repair Program	<ul style="list-style-type: none">• Number of leaks repaired• AFY of water saved
Brentwood's E/T Controller Program	<ul style="list-style-type: none">• Number of controllers installed per year• AFY of water saved

Monitoring Systems

The following table describes the monitoring systems in place to verify performance of each of these program elements.

Program Element	Monitoring Systems
DWD's HET Rebate Program	<ul style="list-style-type: none">• To receive a rebate, customers must produce copy of paid receipt showing that HET has been purchased and a receipt showing that it has been installed
DWD's Leak Detection and Repair Program	<ul style="list-style-type: none">• District personnel will observe water main repairs to confirm that leaks have been stopped.
Brentwood's SMART ET Irrigation Controller Conversion Program	<ul style="list-style-type: none">• Training on how to operate the SMART ET Controller program will be provided to each of the residents. Water use for each of the participating residents will be tracked on the monthly basis to determine the amount of savings.

Data Collection and Evaluation Process

The following table describes the data collection and evaluation process for each of these program elements.

Program Element	Data Collection and Evaluation Process
DWD's HET Rebate Program	<ul style="list-style-type: none"> DWD will log the addresses of where existing toilets have been replaced with HE Toilets. The information will be entered only after evidence has been provided that the toilet has been replaced by a plumber. The number of toilets replaced will be tracked on a monthly basis. If the trend shows that DWD will not meet its target of replacing 490 toilets during the project period then the District will increase its public education program with expanded notification of the availability of the rebate program.
DWD's Leak Detection and Repair Program	<ul style="list-style-type: none"> Water leaking from mains will be collected with the use of visqueen under and around the leak once the main has been exposed, and diverted to a bucket. The time it takes to collect one gallon of water will be noted in order to determine the gallons per minute of flow from the leak. The number of repairs and actual water savings will be tracked. It should be noted that the water savings may be more or less than the targeted amount (73.5 AFY) depending on the severity of the leaks found. The current target amount is based on water flow observed from similar repairs to water mains.
Brentwood's SMART (ET) Irrigation Controller Program	<ul style="list-style-type: none"> Brentwood will maintain a database of the addresses where the SMART (ET) Irrigation Controllers have been installed and will record monthly water use data and compare that data to prior years' water use to estimate water savings from the program.

Consistency with Basin Plan

Program Element	Consistency with Basin Plan
DWD's HET Rebate Program	By reducing water demands, these projects may leave additional supply in the Delta, providing increased dilution for pollutants. As a result, these projects would be expected to contribute to a reduction in concentration of the bulk of the contaminants for which water quality objectives have been identified for the Sacramento-San Joaquin Delta. Therefore, these projects are consistent with the Region 5 Basin Plan.
DWD's Leak Detection and Repair Program	
Brentwood's E/T Controller Program	

Project Performance Measures Table: East County Water Conservation Program

Project Goals	Desired Outcomes	Output Indicators	Outcome Indicators	Measurement Tools and Methods	Targets
DWD HET Rebate Program					
Conserve Water	Reduce water use by installing High Efficiency Toilets in single family and multifamily homes.	1. # of HETs installed 2. AFY of water saved	Decreased water use	Addresses of HET installations will be logged and water use will be tracked on a monthly basis.	1. Install 490 toilets 2. Save 8.5 AFY
DWD Leak Detection and Repair					
Conserve Water	Reduce water lost due to leaks in the District's water distribution system	1. Miles of pipeline inspected 2. # of repairs made 3. AFY of water saved	Improved conservation through reduced water leaks in system	Amount of water lost will be determined by measuring the flow rate at each of the leaks repaired (e.g. gallons lost per minute)	1. Repair leaks found within the 7 miles of inspected pipe 2. Conserve 73.5 AFY of water
Brentwood E/T Controller Program					
Conserve Water	Reduce outdoor water use by installing weather-based irrigation controllers	1. # of controllers installed 2. AFY of water saved	Decreased water use	Addresses of controller installations will be logged and water use will be tracked on a monthly basis.	1. Install 7500 controllers over 5 years 2. Save 1,138 AFY

Task 2 – East County Water Meter Installation Program

The East County Water Meter program aims to save valuable Delta and groundwater supplies through the following program elements:

- DWD Residential Water Meter Installation Program – involves installation of 110 meter for residences that are currently unmetered.
- CCWD Untreated Water Irrigation Metering Project – involves installation of 106 meters for irrigation customers within the East County region.

Metrics Used to Evaluate Project Performance

The following table describes the various metrics that will be used to evaluate the performance of each of these program elements.

Program Element	Metrics
DWD's Residential Water Meter Installation Program	<ul style="list-style-type: none">• Number of meters installed• AFY of water saved
CCWD's Untreated Water Irrigation Metering Project	<ul style="list-style-type: none">• Number of meters installed• AFY of water saved

Monitoring Systems

The following table describes the monitoring systems in place to verify performance of each of these program elements.

Program Element	Monitoring Systems
DWD's Residential Water Meter Installation Program	<ul style="list-style-type: none">• Project performance will be verified by measuring monthly water use. First year's meter readings will be compared to second year's readings to verify reductions in consumption.
CCWD's Untreated Water Irrigation Metering Project	<ul style="list-style-type: none">• The District currently maintains a database of customer consumption. In general, metered customers have more reliable consumption data than flat rate customers. Metering allows for the collection of data over time so that consumption can be monitored. The District's Customer Service Department will be responsible for notifying customers of the installations and handling customer issues as they arise. The Water Conservation Department will provide assistance to customers with managing their water use after meter installation.

Data Collection and Evaluation Process

The following table describes the data collection and evaluation process for each of these program elements

Program Element	Data Collection and Evaluation
DWD's Residential Water Meter Installation Program	<ul style="list-style-type: none"> The water meter at each service will be read on a monthly basis. The meter readings will be stored in the District's computer system and after two years of readings, a month by month comparison of water use will be made to evaluate the data. The water meter data will be loaded into an excel spreadsheet in order to compare monthly water use to the prior year's monthly water use. If the water use has not dropped by at least 20%, the District will increase its efforts to educate customers on the importance of water conservation and review with them the meter readings from their water meters and assist them with finding possible leaks in their residences.
CCWD's Untreated Water Irrigation Metering Project	<ul style="list-style-type: none"> The new meters will allow the continuous collection of consumption data and better analysis of consumption patterns by the Water Conservation Department. Customer accounts will be read and billed monthly. Data for analyses will be collected over time. To calculate or measure the water savings will require at least a second full year of consumption with the data collected during the first year serving as the baseline for comparison purposes. Historical analyses have resulted in up to 20% savings over four years. Once a customer is metered, the account will remain metered indefinitely. Customers will receive a price signal for their usage. They now receive monthly water bills compared to the annual bill they received as flat rate unmetered customers. This monthly price signal has already caused some customer to contact CCWD for assistance in locating leaks in their system. In addition, a couple of the customers decided to close their accounts due to the increase in their water bills.

Consistency with Basin Plan

Program Element	Consistency with Basin Plan
DWD's Residential Water Meter Installation Program	By reducing water demands, these projects may leave additional supply in the Delta, providing increased dilution for pollutants. As a result, these projects would be expected to contribute to a reduction in concentration of the bulk of the contaminants for which water quality objectives have been identified for the Sacramento-San Joaquin Delta. Therefore, these projects are consistent with the Region 2 and Region 5 Basin Plan.
CCWD's Untreated Water Irrigation Metering Project	

Project Performance Measures Table: East County Water Meter Installation Program

Project Goals	Desired Outcomes	Output Indicators	Outcome Indicators	Measurement Tools and Methods	Targets
DWD Residential Water Meter Installation Program					
Reduced Water Use	Have all water services under DWD control metered in order to evaluate water conservation efforts	<ol style="list-style-type: none"> # of meters installed Monthly metered water use data 	<ol style="list-style-type: none"> 100% of water services metered Reduced water use for each of the services that have meters installed 	<ol style="list-style-type: none"> Completion of installation Excel spreadsheet comparing monthly water use trends 	20% drop in consumption based on the metered water use after 4 years.
CCWD Untreated Water Irrigation Metering Program					
Reduce dependence on Delta supplies	Offset water demand demand by increasing water conservation	% reduction in water use	<ol style="list-style-type: none"> Increased percentage of metered accounts within service area Decreased water use 	Monthly Meter reads	Quantity of Water consumption decreased by ~20% within a period of 4 years.
Water Use Efficiency	Identify potential system leaks	# of contacts from newly metered customers concerned about leaks	Decreased water use	Monthly Meter reads, customer contact	Quantity of Water consumption decreased by ~20% within a period of 4 years.

Task 3 – Brentwood Non-Potable Water Supply Project

The Brentwood Non-Potable Water Supply Project aims to provide 88 AFY of potable water offsets (including Delta and local groundwater supplies) by extending recycled water service to irrigate an additional 29 acres of land.

Metrics Used to Evaluate Project Performance

Metrics used to evaluate project performance include:

- AFY of potable water offsets

Monitoring Systems

Monitoring systems in place include flow meters to record the amount of recycled water delivered.

Data Collection and Evaluation Process

The annual amount of recycled water deliveries to each of the customers will be tracked and recorded as potable offsets.

Consistency with Basin Plan

This project will increase recycled water, reducing wastewater discharges. As a result, it would be expected to decrease the loading of bacteria, biostimulatory substances, chemical constituents, mercury, pesticides, salinity, suspended material, and turbidity into Delta waters. It may also contribute to increased dissolved oxygen and decreased in turbidity. Therefore, the project is consistent with the Region 5 Basin Plan.

Project Performance Measures Table: Brentwood Non-Potable Water Supply Project

Project Goals	Desired Outcomes	Output Indicators	Outcome Indicators	Measurement Tools and Methods	Targets
Reduce dependence on Delta supplies	Offset potable water demand by providing recycled water for irrigation use	AFY in potable offsets	Decreased reliance on Delta water supplies for non-potable uses Increased recycled water use	Track monthly and annual recycled water deliveries to new customers	29 acres of land irrigated with non-potable supplies; Provide 88 AFY of potable water offsets
Improve water supply reliability	Provide additional dry year reliability to irrigation customers	AFY of recycled water provided	Improved water supply reliability in drought years	Track monthly and annual recycled water deliveries to new customers	Reliable delivery of non-potable irrigation supplies

Task 4 – Pittsburg Recycled Water Pipeline Rehabilitation Project

The Pittsburg Recycled Water Pipeline Rehabilitation project aims to ensure continued delivery of approximately 526 AFY of recycled water through rehabilitation of a segment of a distribution pipeline that has a history of failures.

Metrics Used to Evaluate Project Performance

The primary metric for evaluating the performance of the Pittsburg Recycled Water Rehabilitation project is improved water supply reliability, as measured by:

- Number of pipeline failures per year
- Days of downtime per year due to failure/repair

Monitoring Systems

The performance of this project will be monitored by DDSD's Operation and Maintenance staff.

Data Collection and Evaluation Process

Given that this is a rehabilitation project, the data collection process is primarily observation, including reporting and response to a pipeline failure. DDSD's Operation and Maintenance staff will observe the rehabilitation work performed by the Contractor and will confirm that the pipeline has been effectively repaired, thereby resulting in a lower expected failure rate.

Consistency with Basin Plan

This project will enable continued use of recycled water in lieu of wastewater discharge. As a result, it would be expected to decrease the loading of bacteria, bioaccumulative substances, biostimulatory substances, chemical constituents, mercury, pesticides, salinity, suspended material, and ammonia (ionized and un-ionized) into receiving waters. It may also contribute to increased dissolved oxygen and decreased turbidity. The City of Pittsburg's wastewater is treated and discharged by the Delta Diablo Sanitation District, located in Region 2; as a result, pollutant loading reductions would be achieved within Region 2 and the project is consistent with the Region 2 Basin Plan.

Project Performance Measures Table: Pittsburg Recycled Water Pipeline Rehabilitation Project

Project Goals	Desired Outcomes	Output Indicators	Outcome Indicators	Measurement Tools and Methods	Targets
Improve water supply reliability	Provide a reliable supply of 526 AFY recycled water to Pittsburg irrigation customers by rehabilitating a pipe to lower the failure rate	<ol style="list-style-type: none"> 1. Number of pipeline failures per year 2. Days of downtime per year due to failure/repair 	<ol style="list-style-type: none"> 1. Reduced frequency of pipeline failures 2. Reduced severity/duration of pipeline failure/repairs 	<ol style="list-style-type: none"> 1. Incident reports 2. Repair Contract – days pipeline is out of service for repair 	Fewer repairs over time than the industry standard for this type of pipe

Task 5 – Phase 2 Contra Costa Canal Levee Elimination and Flood Protection Project

The purpose of the Contra Costa Canal Levee Elimination and Flood Protection Project is to replace 21,000 feet of the unlined Contra Costa Canal with a pipeline to improve source water quality available to CCWD by preventing intrusion of poor quality groundwater; eliminate up to eight miles of aging canal embankments that were not intended to provide flood protection, though they are currently relied upon for that purpose; and improve security and public safety by preventing access to the open water canal. This project is Phase 2 of the full project, which includes replacing approximately 400 feet of the canal with a pipeline and eliminating associated canal embankments. Phase 2 also includes a crossing of Marsh Creek.

Metrics Used to Evaluate Project Performance

Project performance will be evaluated primarily by conducting pre- and post-project monitoring and data analysis, by tracking construction progress with respect to established milestones, and by tracking budget expenditures with respect to the established budget. Specifically, the following metrics will be used to evaluate project performance:

- Based on historical data analysis, encasing the canal will decrease electrical conductivity (salinity) up to 50 ms/cm depending on conditions. Rock Slough water quality monitoring is done on a daily basis, making improvements in water quality easily quantifiable by comparing pre- and post-project conditions.
- Meeting the construction goals and schedules will also be important milestones to judge the success of the project by.
- Ensuring the project remains within the allotted budget is also an indicator of a successful project.

Monitoring Systems

Project performance will be verified by measuring water quality pre- and post-implementation. Water quality monitoring is conducted daily at Rock Slough.

Data Collection and Evaluation Process

The bulk of the technical work has already been completed for this project, including water quality sampling. No additional data collection is needed for the remaining phases of this project.

Consistency with Basin Plan

This project will prevent intrusion of saline groundwater into the Contra Costa Canal, directly contributing to achievement of Basin Plan electrical conductivity (EC) objectives for Canal supplies. This project would also be expected to improve taste and odor in delivered water. This project is consistent with the Region 5 Basin Plan, which includes water quality objectives for the Contra Costa Canal.

Project Performance Measures Table: Phase 2 Contra Costa Canal Levee Elimination and Flood Protection Project

Project Goals	Desired Outcomes	Output Indicators	Outcome Indicators	Measurement Tools and Methods	Targets
1. Maintain compatibility of CCWD's water supply conveyance facilities with land uses	1. Compatibility of CCWD's supply with planned land uses in the area, including ecosystem restoration 2. Isolation of surface water supply from groundwater resources	1. Number of proximate ecosystem restoration projects capable of being implemented 2. Measure of reduction in groundwater seepage into the canal	1. Increased compatibility with planned land use in the project area 2. 2-5%* reduction in salinity	1. USEPA and Standard Lab Methods 2. CALFED Delta Improvements Package http://calwater.ca.gov/DeltaImprovements/DIP/DeltaImprovementPackage.shtml	1. 2-5%* reduction in salinity. 2. Encasement of entire 4 miles of unlined canal in three phases with second phase completed by 2013 3. Achievement of all primary and secondary drinking water standards
2. Improve operations of the CVP and SWP	1. Improved flexibility of SWP and CVP operations	1. Measure of reduction in water quality compliance issues at Pumping Plant No. 1	1. 2-5%* reduction in salinity.	1. USEPA and Standard Lab Methods 2. CALFED Delta Improvements Package http://calwater.ca.gov/DeltaImprovements/DIP/DeltaImprovementPackage.shtml	1. 2-5%* reduction in salinity. 2. Achievement of all primary and secondary drinking water standards
3. Improved protection	1. Increased security	1. Absence or reduction of injuries and drownings	1. Measure of length of canal encased compared to entire 4 mile length	1. DWR – Public Safety http://www.water.ca.gov/nav.cfm?topic=Public_Safety 2. Project as-built documentation	1. Encasement of entire 4 miles of unlined canal in three phases with entire second phase completed by 2013 (first phase was completed in 2009)

Project Goals	Desired Outcomes	Output Indicators	Outcome Indicators	Measurement Tools and Methods	Targets
4. Improved water quality	1. Improvement in delivered water quality to CCWD 's customers	1. Measure delivered water quality with respect to federal and state drinking water regulations	1. 2-5%* reduction in salinity.	1. USEPA and Standard Lab Methods	1. 2-5%* reduction in salinity. 2. Achievement of all primary and secondary drinking water standards
5. Reduced flood risk	1. Enhanced flood protection (reduction in levee failure risk)	1. Reduction in flood events	1. Measure of reduction in frequency of flooding	1. DWR – Public Safety http://www.water.ca.gov/nav.cfm?topic=Public_Safety	1. Measurable reduction in frequency of flooding

*When the water quality compliance point standard at Rock Slough governs, water supply benefits to the Central Valley and State Water Projects occur because upstream releases can be reduced because no local degradation occurs in the Contra Costa Canal.

Task 6 – Drainage Area 55 - West Antioch Creek Channel Improvements

The City of Antioch is partnering with the Flood Control District to replace an undersized concrete trapezoidal channel and arch culverts to eliminate flooding to commercial and multi-family properties adjacent to the channel and within a Disadvantaged Community Area.

Metrics Used to Evaluate Project Performance

Existing watershed hydrology and hydraulic runoff criteria established by the Contra Costa County Flood Control District will be utilized to measure specific storm runoff events and compare to improved channel capacity projections. Current channel capacity restrictions cause localized flooding on an annual basis; post-project, higher levels of protection (Q25-Q100) will be provided. Actual channel performance will be measured in the field during specific documented storm events.

Monitoring Systems

Contra Costa County Flood Control District has established hydrology and hydraulic information for this watershed area. Specific storm events will be compared against existing data to verify channel performance against designed criteria.

Data Collection and Evaluation Process

Actual rainfall data from specific storm events will be collected and used to analyze/verify hydrology and hydraulic runoff conditions to determine the performance of the designed channel improvements against actual flow conditions. Projected infiltration rates and proposed development within the watershed will be monitored and review on a periodic basis. Rainfall data will continuously be collected in the future to provide for a more accurate flow projections.

Rainfall data will be collected continuously in the future to ensure that hydrology and hydraulic flow projections were established correctly. Future minor capacity adjustments can be made to adjust to changes in design flow criteria.

Consistency with Basin Plan

This project will eliminate flooding in an urbanized area and subsequent introduction of polluted flood waters into the Delta, potentially reducing loading of bacteria, biostimulatory substance, chemical constituents, floating material, mercury, oil and grease, pesticides, salinity, sediment, settleable material, suspended material, and taste-and-odor-causing compounds. In addition, pollution from flood waters could cause pH impacts and contribute to increased temperature, turbidity, color and toxicity and decreased dissolved oxygen. As a result, this project is consistent with the Region 5 Basin Plan.

Project Performance Measures Table: Drainage Area 55 - West Antioch Creek Channel Improvements

Project Goals	Desired Outcomes	Output Indicators	Outcome Indicators	Measurement Tools and Methods	Targets
Eliminate/Reduce flooding occurrences	Improve-Flood Protection level	Compared improved channel capacities against actual storm events	Reduction/elimination of flooding occurrences in the area	Rainfall collection and project hydraulic runoff conditions	Q25-Q100 levels of flood protection

Task 7 – Upper Sand Creek Basin

The primary purpose of the Upper Sand Creek Basin (USCB, Basin) is to prevent flooding along the lower reach of Marsh Creek between Sand Creek and the Marsh Creek outfall into the Sacramento-San Joaquin River at Big Break in Oakley. The regional goal for USCB is to significantly reduce peak flows from Sand Creek into Marsh Creek. Local stormwater runoff and stormwater generated in the watershed will be conveyed by Sand Creek to the basin where it will be stored and released slowly through the basin outlet, reducing peak flows downstream and reducing the potential for flooding downstream properties. Secondary purposes of the Basin include habitat restoration and water quality enhancements.

Metrics Used to Evaluate Project Performance

The main metrics that will be used to assess project performance are improved flood control and reduction of the 100-year, 12-hour flood water levels over nine miles of Sand and Marsh Creek. In addition, the 100-year flow rate at the outlet of the USCB is expected to be reduced to 131 cubic feet per second, maximum.

Monitoring Systems

The District has a stream gage station on Marsh Creek downstream of USCB that reports maximum stage and flow rate for each storm event. Controlling for other factors, flow levels in Marsh Creek should be lower after construction of USCB.

Data Collection and Evaluation Process

The District maintains an ongoing data collection system on Marsh Creek. The data collection system is located upstream of a drop structure, in Marsh Creek, between Delta Road and Sunset Road.

The flow through the primary spillway of USCB is controlled by a removable metal orifice plate. If, after construction, the District determines that the flow rates in Sand and Marsh Creeks need to be adjusted to change performance, this plate can easily be adjusted.

Construction of USCB will be followed by the construction Lower Sand Creek Basin, which will occur a few years following the USCB project. Issues that cannot be resolved by USCB will be addressed by the Lower Sand Creek Basin design.

Consistency with Basin Plan

This project will eliminate flooding in an urbanized area and subsequent introduction of polluted flood waters into the Delta, potentially reducing loading of bacteria, biostimulatory substance, chemical constituents, floating material, mercury, oil and grease, pesticides, salinity, sediment, settleable material, suspended material, and taste-and-odor-causing compounds. In addition, pollution from flood waters could cause pH impacts and contribute to increased temperature, turbidity, color and toxicity and decreased dissolved oxygen. As a result, this project is consistent with the Region 5 Basin Plan.

Project Performance Measures Table: Upper Sand Creek Basin Project

Project Goals	Desired Outcomes	Output Indicators	Outcome Indicators	Measurement Tools and Methods	Targets
Restore Habitat	Ensure high value habitat in restored areas	Wetland habitat created	Degraded areas restored to wetlands	Measure acreage of wetlands created	Create 0.47 acres of permanent wetland, 2.18 acres of seasonal wetland and 0.6 acres of riparian woodland/scrub
Improve water quality	Improve quality of stormwater passing through USCB	Cleaner water discharged from USCB	Amount of pollutants removed by USCB	Measure pounds of floatable trash removed	100 pounds of trash removed a year
Reduce flood risk	Enhanced levels of flood protection	Reduction in the number of flood events that overtop bank downstream	Interval of flood events that overtop bank downstream	Track ability to withstand storms without overtopping	Measurable reduction in flood events downstream of site
Open Space Preservation	Preserve open space	Increased number of protected acres	Acres protected	Post project right of way measurement	Put 62.5 acres into public ownership

Task 8 – Watershed Protection and Restoration

The purpose of this project is to acquire and restore habitat for endangered and listed species in eastern Contra Costa County. This is part of a regional program to permanently protect and manage a 30,000 acre preserve system for ecosystem integrity, species and recreation.

Metrics Used to Evaluate Project Performance

A tailored development monitoring plan will be completed for the project prior to construction. Metrics identified in the monitoring plan are expected to include: hydrologic inundation period, acreage of inundated area, % cover of native vegetation, occupation of wetland by native amphibians and invertebrates.

Monitoring Systems

Project monitoring will be completed on a monthly basis by a trained biologist.

Data Collection and Evaluation Process

Data collected will be tracked and evaluated with respect to metrics established in the monitoring plan to assess project performance. This assessment will be used to adaptively manage the project; if the data assessment reveals a failure to achieve project objectives, implementation will be reviewed and, if appropriate, modified to better achieve project objectives.

Consistency with Basin Plan

By conserving the headwaters to many small creeks in perpetuity, this project would be expected to reduce loading of all identified pollutants, and preserve existing dissolved oxygen concentrations. As a result, this project is consistent with the Region 2 and Region 5 Basin Plan.

Project Performance Measures Table: Watershed Protection and Restoration Project

Project Goals	Desired Outcomes	Output Indicators	Outcome Indicators	Measurement Tools and Methods	Targets
1. Protect and restore sensitive habitats (including wetlands) and rare, threatened, and endangered species	1. Protect and/or restore approximately 1,500 acres of key habitat for rare, threatened, and endangered species.	1. Percent of acres protected and/or restored out of total 1,500 acres proposed	1. Number of acres protected 2. Number of acres restored	1. East Contra Costa County HCP/NCCP http://www.cocohcp.org/	1. Protect and/or restore approximately 200-500 acres of key habitat for rare, threatened, and endangered species.
2. Protect and enhance surface water and groundwater quality	1. Conserve lands and enhance management in watersheds tributary to water supply intakes 2. Conserve lands and enhance management in watersheds that recharge groundwater basins	1. Strict land management, adaptive management and monitoring as outlined in HCP/NCCP	1. Number of acres of upland watershed land protected 2. Number of acres of wetlands restored	1. East Contra Costa County HCP/NCCP http://www.cocohcp.org/	1. Protect lands in the northwest portion of the IRWMP area 2. Restore 2 acres of wetlands